**Unit 2 Map (Macroevolution)**

Ms. OK, AP Biology, 2014-2015

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| **Topic** | **Learning Target** | **DBA Score** (%) | **Test Score** (%) |
| 1. Macroevolution and Speciation | A. I can describe the “isolating mechanism” (ex: behavioral isolation) that can lead to speciation between two populations of organisms. |  |  |
| B. I can explain how to determine if speciation has taken place. (If members of two populations cannot interbreed and produce fertile offspring, they are no longer in the same species.) |
| C. I can describe the differences between three patterns of macroevolution—divergent evolution, convergent evolution, and coevolution—and identify examples of each. |
| D. I can describe the differences between the two models of the rate of macroevolution—gradualism and punctuated equilibrium—and show each of these models using graphs and phylogenetic trees. |
| 2. Classification and Biodiversity | E. I can describe the evidence (ex: homologous structures, analogous structures, molecular sequence data) that scientists use to determine evolutionary history (i.e. phylogeny). |  |  |
| F. I can analyze a cladogram to describe relationships between groups of organisms, and I can create a cladogram given information about relationships between groups of organisms. |
| G. I can describe characteristics of the “universal common ancestor” (i.e. the ancestor of all living things) |
| H. I can identify basic characteristics of the three domains and six kingdoms of living things. |
| 3. Origin of Life | I. I can describe the conditions present on early Earth. |  |  |
| J. I can explain how Miller and Urey’s experiment demonstrated the formation of simple organic molecules under early Earth conditions. |
| K. I can describe the RNA World Hypothesis. |
| L. I can identify major events in the history of life (ex: the appearance of the first multicellular organisms). |